Applies To: **1998–03 Accord V6** – ALL
1999–03 Odyssey – ALL
2003 Pilot – ALL

May 9, 2008

V6 Engine Oil Leaks

(Supersedes 01-009, dated February 20, 2004, to update the information marked by the black bars)

SYMPTOM

Oil leaks from the front, middle, or rear of the engine.

PROBABLE CAUSE

The cast aluminum engine block may be porous in spots.

CORRECTIVE ACTION

Depending on the location of the leak, seal it with JB Weld or 3-Bond-coated sealing bolts.

TOOL INFORMATION

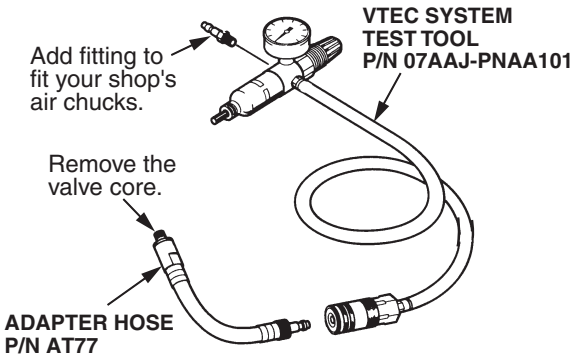
VTEC System Test Tool:
P/N 07AAJ-PNAA101, H/C 7980717

Adapter Hose: P/N AT77

NOTE: For some problems, the VTEC System Test Tool can be used to pressure-check the engine block for oil leaks. A similar tool was first used in 1992 to check the rocker arms on VTEC engines (see Service Bulletin 91-038, *VTEC Inspection Tool*).

If your shop does not have a VTEC System Test Tool, order it from your parts center. The tool consists of a gauge with regulator, a hose, and a coupler.

If your shop does not have an adapter hose, order it from the Honda Tool and Equipment Program at 888-424-6857.


Add fitting to fit your shop's air chucks.
VTEC SYSTEM TEST TOOL P/N 07AAJ-PNAA101
Remove the valve core.
ADAPTER HOSE P/N AT77

REQUIRED MATERIALS

JB Weld: P/N 8265-S (commercially available)

Powdered Leak Detector: P/N 20165
(Call Kent Automotive at 866-837-9908.)

PARTS INFORMATION

Timing Belt Adjuster Pulley Bolt
(except 2003 Accord V6):
P/N 14551-P8A-999, H/C 6665731

Timing Belt Adjuster Pulley Bolt
(2003 Accord V6 only)
P/N 14551-RCA-A01, H/C 7244379

Engine Side Mount Bracket Bolt:
P/N 95801-10085-99, H/C 6646574

Transmission Mounting Bolt (2 required):
P/N 95701-12070-99, H/C 6646566

WARRANTY CLAIM INFORMATION

In warranty: The normal warranty applies.

OP#	Description	FRT
109001	**All models:** Repair pulley bolt hole of timing belt adjuster (includes finding the leak)	3.7
109002	**All models:** Repair pocket on right side of timing belt adjuster pulley bolt hole (includes finding the leak, and JB Weld setup procedure)	4.0
109003	**Accord:** Repair lower bolt hole of the engine side mount bracket (includes finding the leak)	0.7
109003	**Odyssey and Pilot:** Repair lower bolt hole of the engine side mount bracket (includes finding the leak)	2.0
109004	**All models:** Repair upper two transmission mounting bolt holes (includes finding the leak)	0.8
109005	**All models:** Repair engine valley below intake manifold (includes finding the leak, and JB Weld setup procedure)	3.8
109006	**All models:** Repair two oil passages on transmission end of engine block (includes finding the leak, and JB Weld setup procedure)	7.3

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Skill Level
R
REPAIR

CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

Failed Part:	P/N 10002-P8F-A00 H/C 5946587
Defect Code:	07601
Symptom Code:	05101
Skill Level:	Repair Technician

Out of warranty: Any repair performed after warranty expiration may be eligible for goodwill consideration by the District Parts and Service Manager or your Zone Office. You must request consideration, and get a decision, before starting work.

REPAIR PROCEDURE

Most engine oil leaks can be seen when you disassemble the suspected area. But if you want to pinpoint the exact location of the leak, use a powdered leak detector (best for suspected bolt hole leaks) or do a pressure-test with the VTEC System Test Tool (best for suspected block porosity).

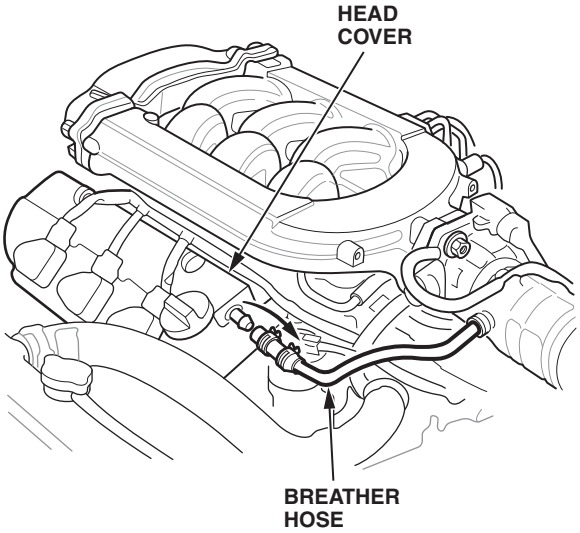
Leak Testing With a Powdered Leak Detector (Best for suspected bolt hole leaks)

1. Clean off residual oil and grease from the engine with engine degreaser.
2. Disassemble the engine enough to expose the area of the leak.
3. Spray powdered leak detector on the area.
4. Reassemble the engine, start it, and run it for about 5 minutes.
5. Shut off the engine, and inspect the leak area. Once you find the leak, go to **Confirming the Leak** on page 3, and use the chart to determine whether to follow **Repair Procedure A** or **Repair Procedure B.**

Leak Testing With the VTEC System Test Tool

(Best for suspected block porosity)

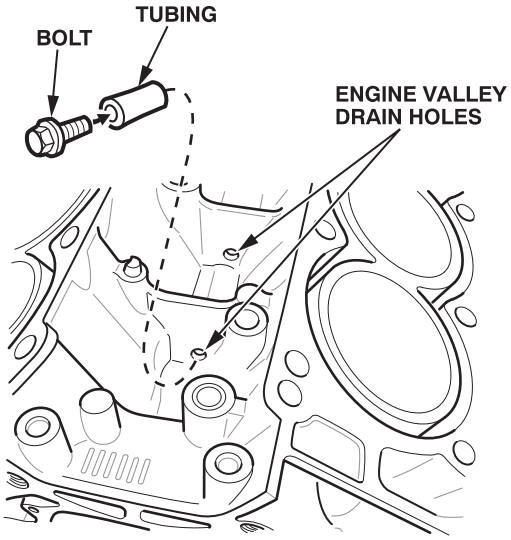
1. Disconnect the breather hose connecting the front head cover to the air inlet tube.



2. Remove the oil pressure switch from the oil pump.
3. Screw the adapter of the VTEC tool into the oil pressure switch hole.
4. Connect the VTEC tool to shop air regulated to no more than 40 psi.
5. Brush soapy water on the suspected porous area (best for vertical surfaces) or fill the area with soapy water (best for a suspected leak in the engine valley).

   If the area bubbles, you've found the leak. Go to **Confirming the Leak** on page 3, and use the chart to determine whether to follow **Repair Procedure A** or **Repair Procedure B**.

   NOTE: To fill an engine valley section with soapy water, plug the drain hole in the valley with a piece of tubing (P/N 36285-P8A-A00, H/C 5181730) around a 6 x 15 mm bolt.



6. After you pressure-test the block and make the needed repairs, pull fuse No.11 (15A) from the driver's under-dash fuse/relay box (to disable the ignition system), then crank the engine for 10 to 15 seconds; this ensures the engine bearings are lubricated before you start the engine. After you crank the engine, reinstall the fuse.
7. If you can't find the leak with this method, use the powdered leak detector.

Repair Procedure A

1. Remove and discard the original bolt(s).
2. Install the appropriate coated bolt(s) (see PARTS INFORMATION), and torque them as indicated:
   - Timing Belt Adjuster Pulley Bolt: 44 N·m (33 lb-ft)
   - Engine Side Mount Bracket Bolt: 44 N·m (33 lb-ft)
   - Transmission Mounting Bolts: 73 N·m (54 lb-ft)
3. Reassemble the engine, start it, and let it run for 20 minutes. Then shut it off, and confirm that the leak is gone.

Repair Procedure B

1. Thoroughly clean the area to be patched. *This is vital for good bonding of the adhesive.*
2. Follow the manufacturer's directions for preparing the JB Weld 8265-S adhesive.
3. Spread a generous amount of adhesive on the leak area and 1 to 2 inches surrounding it.
4. Reassemble the engine, making sure not to disturb the adhesive.
5. Let the adhesive set for at least 24 hours before you start the engine. *This is vital because engine oil pressure will try to push through the repair.*
6. If you pressure-tested the block, pull fuse No.11 from the driver's under-dash fuse/relay box to disable the ignition system. Then crank the engine for 10 to 15 seconds; this ensures that the engine bearings are lubricated before you start the engine. After you crank the engine, reinstall the fuse.
7. Start the engine, and let it run for 20 minutes. Then shut it off, and confirm that the leak is gone.

Confirming the Leak

The engine may leak at any of six known areas. Confirm the leak with this chart, then repair it using Repair Procedure A or B.

Possible Leak Source	Leak Confirmation	Repair Procedure
Lower bolt hole of engine side mount bracket (see Illustration 1)	Remove the engine side mount lower bolt, then look for oil on the bolt threads or at the bottom of the bolt hole.	Use Repair Procedure A (coated bolts).
Bolt hole of timing belt adjuster pulley (see Illustration 1)	Remove the bolt, then look for oil on the bolt threads or at the bottom of the bolt hole.	Use Repair Procedure A (coated bolts).
Pocket on right side of timing belt adjuster pulley bolt (see Illustration 1)	Look for oil in the pocket, not in the threads, of the timing belt adjuster pulley bolt hole. If needed, use one of the leak detection methods on page 1 or 2.	Use Repair Procedure B (JB Weld).
Upper two transmission mounting bolt holes (see Illustration 2)	Remove the upper two transmission mounting bolts, then look for oil on the bolt threads or at the bottom of each bolt hole.	Use Repair Procedure A (coated bolts).
Two oil passages on transmission end of engine block (see Illustration 2)	Look for oil on the transmission end of the block. If needed, use one of the leak detection methods on page 1 or 2.	Use Repair Procedure B (JB Weld).
Engine valley, below intake manifold (see Illustration 3)	Look for oil in the engine valley. If needed, use one of the leak detection methods on page 1 or 2.	Use Repair Procedure B (JB Weld).

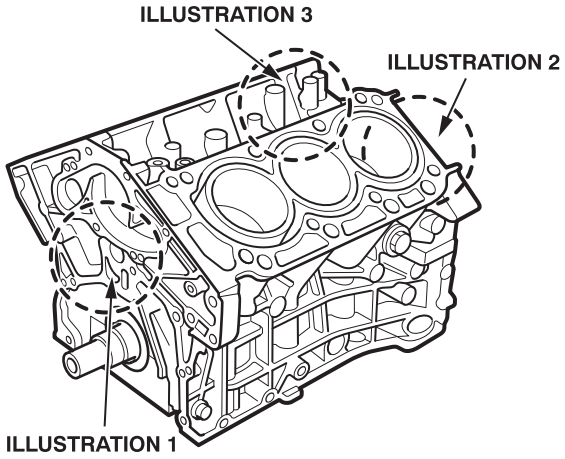


Illustration 1

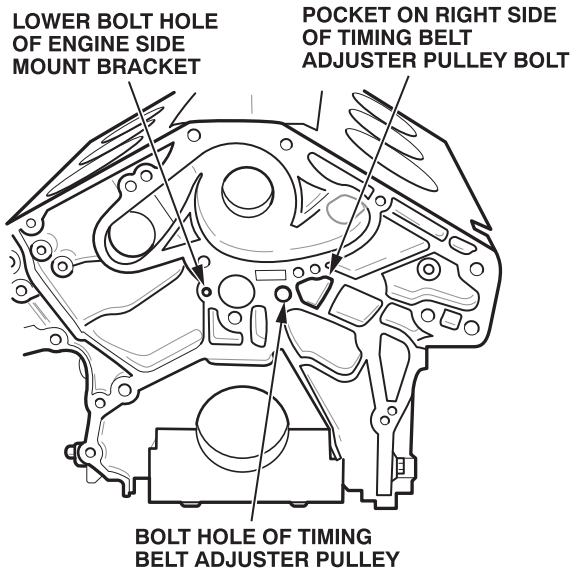


Illustration 2

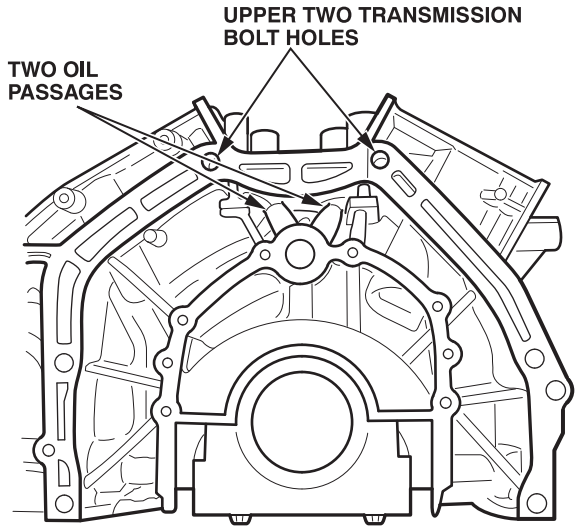


Illustration 3